Remarks/Arguments:

With the present response, claims 55, 56, 61, 62, 65-77, and 81-89 are pending. Claims 55, 56, 61, 62, 65-77, 81, and 85-88 are under consideration, with claims 82-84 and 89 having been withdrawn from consideration.

The Advisory Action mailed on December 7, 2007 stated that the Request for Reconsideration filed on November 20, 2007 fails to place the application in condition for allowance. Applicants have amended the claims and believe that the application is now in condition for allowance.

Claim rejections

Claims 55, 56, 61, 62, 65-77, 81, and 85-88 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,077,295 to Limon et al. ("Limon") in view of U.S. Patent No. 5,702,418 to Ravenscroft ("Ravenscroft").

Independent claims 55, 65, 81, and 85

At the outset, Applicants respectfully submit that each of claims 55, 65, 81, and 85 recite stabilizers that have a stent-underlying portion "having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion proximal end to the portion distal end." Applicants respectfully submit that these limitations must be given patentable weight. Applicants' position is well supported by the MPEP and caselaw.

> A functional limitation *must be evaluated and considered*, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient, or step. . . . . limitations such as "members *adapted to be positioned*" . . . serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976)

MPEP § 2173.05(g) (emphasis added).

Thus, the claimed stabilizers have stent-underlying portions that have lengths defined by the stents under which the stabilizers are adapted to be positioned. Thus, the recitation of protrusions distributed along the length of the stent-underlying

portion from the proximal end to the distal end of the stent-underlying portion must be given patentable weight and addresses the Examiner's concern expressed in the Advisory Action that "applicant does not claim the protuberances lie along the entire length of the stent." Applicant notes that "distributed along the length of the stent-underlying portion from the proximal end to the distal end of the stent-underlying portion" as it would be commonly understood by one skilled in the art, does not imply that every possible fraction of the stent-underlying portion contains protrusions, but rather that the protrusions are distributed such that there are one or more protrusions adjacent the distal end, one or more protrusions adjacent the proximal end, and one or more protrusions in the section between the ends. The term "distributed" does not imply any particular pattern of distribution.

Amended claim 55 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising one or more radial protuberances (wherein the radial protuberances comprise one or more rings) for engaging the stent inner periphery *along the length of the stent-underlying portion from the proximal end to the distal end of the stent-underlying portion*. The "length" of the stent-underlying portion is defined in claim 55 as "extending from the portion proximal end to the portion distal end" in which each end of the portion is adapted to be positioned adjacent the corresponding end of the stent.

Limon discloses a stent delivery system that includes a plurality of projections 30 that at least partially fill in open lattice structure of the stent. The stent-underlying portion of Limon's device does not contain radial protuberances comprising rings, however, but rather projections 30 that "flow and form around stent 28" upon a heating step. Limon, col. 5, lines 9-12. Limon fails to disclose or suggest one or more rings that protrude from the inner core and lie along the stent-underlying portion of the stabilizer *along the length of the stent-underlying portion*, as is recited in claim 55.

Ravenscroft teaches how the inner surface of a stent bearing on a core and the outer surface bearing on an inner sheath surface in prior art designs creates a "frictional engagement" that "reduces the overall flexibility of the distal end of the stent delivery system," and that "[m]aneuvering a distal end of reduced flexibility through the tortious [sic] paths often encountered in a patient's vessels can increase patient trauma and can, in some cases, make this treatment modality impracticable."

Col. 3, lines 37-47. Ravenscroft specifically mentions that an object of his invention is "to provide a stent delivery system with a flexible distal end." Col. 3, lines 62-63. In order to achieve that objective, Ravenscroft discloses a stent delivery system having a core 14 that includes first and second closely spaced rings 23 located on thin portion 17 *only* where the proximal end of stent 20 is disposed over thin portion 17. In fact, Ravenscroft specifically notes that the presence of stent 20 on the axially spaced rings 23 "does not significantly retard the overall flexibility of the extreme distal end of the catheter" because the rings are "substantially spaced from the distal end tip 13" of delivery catheter 11. Col. 5, lines 31-35. Thus, the location of rings 23 away from the distal end of catheter 11 helps to maintain the desired flexibility of the distal end of catheter 11, such that "the distal portion of the stent 20 floats in a radial sense over the core 17." Col. 5, lines 35-36.

Ravenscroft further describes the advantages to a surgeon of a system having such distal end flexibility. Col. 5, lines 36-44. Ravenscroft teaches away from using rings at the distal end of the catheter, and consequently teaches away from providing rings along the length of the stent-underlying portion from the proximal end to the distal end of the stent-underlying portion, as claimed by Applicants, in order to maintain the stated objective of providing a stent delivery system with a flexible distal end.

Because Ravenscroft teaches away from using rings, or other protuberances, *along the length of the stent-underlying portion from the proximal end to the distal end of the stent-underlying portion*, the proposed combination of Limon and Ravenscroft is improper. Reconsideration and allowance of claim 55 is respectfully requested.

Amended claim 65 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising one or more members for engaging the stent inner periphery *along the length of the stent-underlying portion from the proximal end to the distal end of the stent-underlying portion*, wherein one or more members for engaging the stent inner periphery comprises an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery along the length of the stent *without protruding through interstitial openings* in the stent inner periphery.

Amended claim 81 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising one or more members for engaging the stent inner periphery *along the length of the stent-underlying portion from the proximal end to the distal end of the stent-underlying portion.*

As discussed above with respect to claim 55, each of claims 65 and 81 recites "length" of the stent-underlying portion as "extending from the portion proximal end to the portion distal end" of the stent-underlying portion. Each of claims 65 and 81 also both recite that the claimed members for engaging the stent inner periphery are adapted to frictionally engage the stent *without protruding through interstitial openings* in the stent inner periphery.

Limon, on the other hand, specifically teaches that the outer surface of the inner member underlying the stent "will partially fill the open lattice structure 29 of stent 28 to form projections 30 so that the stent cannot move in an axial direction," (Limon, Col. 4, lines 56-69) which teaches away from the applicant's claimed projections that engage the stent without protruding through the interstitial openings. Because Limon teaches that projections must protrude through the interstitial openings in order to prevent axial movement and, as discussed above with respect to claim 55, Ravenscroft teaches away from using rings, or other protuberances, *along the length of the stent-underlying portion*, the proposed combination of Limon and Ravenscroft is improper. Reconsideration and allowance of claims 65 and 81 is respectfully requested.

Amended claim 85 recites, *inter alia*, a stabilizer for deployment of a stent in a distal location inside a body lumen from a proximal access location outside the body, the stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of the stent, the stabilizer comprising a non-inflatable inner core and at least one distal protuberance underlying the stent and protruding from the inner core for engaging the stent inner periphery at a distal end of the stent-underlying portion.

Ravenscroft teaches away from a member protruding from the inner core for engaging the stent *at a distal end of the stent* by specifically requiring rings 23 to be "substantially spaced from the distal end tip 113." Because Ravenscroft teaches away from using rings or any other protrusions at a distal end of the stent, the

proposed combination of Limon and Ravenscroft is improper. Reconsideration and allowance of claim 85 is respectfully requested.

Claims 56, 61, and 62 all depend from claim 55; claims 66-71 all ultimately depend from claim 65; and claim 86 depends from claim 85. These claims are patentable over the proposed combination of Limon and Ravenscroft for at least the same reasons set forth with respect to their respective independent claims. Reconsideration and allowance of claims 56, 61, 62, 66-71, and 86 is respectfully requested.

Independent claims 72 and 87

Claim 72 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of a stent, the stabilizer comprising one or more members, each of the one or more members comprising one or more radial protuberances that protrude from the inner core and distributed along the stent-underlying portion of the stabilizer along the length of the stent from the proximal end to the distal end of the stent.

Claim 87 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stabilizer comprising a non-inflatable inner core and at least one member underlying the stent and protruding from the inner core for engaging the stent inner periphery at *the distal end of the stent*.

Limon and Ravenscroft are discussed above. Contrary to the statement in the Advisory Action that the stent is unclaimed altogether, each of claims 72 and 87 positively recite a stent as part of the claimed stent delivery system. Furthermore, claim 72, as amended, recites protuberances on the stent-underlying portion of the stabilizer "distributed from the proximal end to the distal end of the stent", which addresses the statement in the Advisory Action regarding the lack of a recitation that the protuberances extend the entire length of the stent. The applicant believes that the language chosen to address the examiner's concern is slightly more precise than claiming that the protuberances extend the "entire length" of the stent.

Ravenscroft teaches away from a radial protuberance (claim 72) or a member (claim 87) protruding from the inner core for engaging the stent *at a distal end of the stent* by specifically requiring rings 23 to be "substantially spaced from the distal end tip 113." Because Ravenscroft teaches away from using rings or any other

protrusions at a distal end of the stent, the proposed combination of Limon and Ravenscroft is improper. Reconsideration and allowance of claims 85 and 87 is respectfully requested.

Claims 73-77 all ultimately depend from claim 72 and claim 88 depends from claim 87. These claims are patentable over the proposed combination of Limon and Ravenscroft for at least the same reasons set forth with respect to their respective independent claims. Reconsideration and allowance of claims 73-77 and 88 is respectfully requested.

Conclusion

In light of the above amendments and arguments, Applicants respectfully submit that the pending claims are allowable over the cited prior art. Reconsideration and allowance of the present application is respectfully requested.

Respectfully submitted,

Rex A. Donnelly Reg. No. 41,712
Joseph E. Maenner Reg. No. 41, 964
Attorneys for Applicants

RAD/JOS/kr

Dated: February 6, 2008

P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

The Director is hereby authorized to charge or credit Deposit Account No. **18-0350** for any additional fees, or any underpayment or credit for overpayment in connection herewith.

KR_H:\WRPORTBL\RP\KREUSCHEL\235053_1.DOC